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=> s double stranded and virus and plant
L1 2541 DOUBLE STRANDED AND VIRUS AND PLANT

=> s l1 and (silenc? or resist? or tolera?)
L2 467 L1 AND (SILENC? OR RESIST? OR TOLERA?)

=> s l2 and transgenic
L3 129 L2 AND TRANSGENIC

=> s l3 and (furovirus or potyvirus or tospovirus or cucomovirus)
L4 8 L3 AND (FUROVIRUS OR POTYVIRUS OR TOSPOVIRUS OR CUCOMOVIRUS)

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5 7 DUP REM L4 (1 DUPLICATE REMOVED)

=> d 1-7 ti

L5 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
TI Engrafted plants **resistant** to viral diseases comprising a **transgenic** rootstock and methods of producing same

L5 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
TI **Silencing** expression of **plant** genes for DnaJ-like proteins to create **transgenic** plants with improved **resistance** to viral infection

L5 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1
TI Crude extracts of bacterially expressed dsRNA can be used to protect plants against **virus** infections

L5 ANSWER 4 OF 7 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN
TI Multiple **virus resistance** in **transgenic** plants conferred by the human dsRNA-dependent protein kinase.

L5 ANSWER 5 OF 7 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN
TI Sense- and antisense-mediated gene **silencing** in tobacco is inhibited by the same viral suppressors and is associated with accumulation of small RNAs.

L5 ANSWER 6 OF 7 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN
TI **Transgenic** tobacco plants expressing the bacterial rnc gene **resist virus** infection.

L5 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
TI **Resistance** to viruses and viroids in **transgenic plant** and animal hosts expressing **double-stranded** RNA-binding protein

=> d 3 ab

L5 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1
AB **Double-stranded** RNA (dsRNA) is a potent initiator of gene **silencing** in a diverse group of organisms that includes plants, Caenorhabditis elegans, Drosophila and mammals. We have previously shown and patented that mech. inoculation of in vitro-transcribed dsRNA derived from viral sequences specifically prevents **virus** infection in plants. The approach required the in vitro synthesis of large amts. of RNA involving high cost and considerable labour. We have developed an in vivo expression system to produce large amts. of **virus**-derived dsRNAs in bacteria, with a view to providing a practical control of **virus** diseases in plants. Partially purified bacterial dsRNAs promoted specific interference with the infection in plants by two viruses belonging to the tobamovirus and **potyvirus** groups. Furthermore, we have demonstrated that easy to obtain, crude exts. of bacterially expressed dsRNAs are equally effective protecting plants against **virus** infections when sprayed onto **plant** surfaces by a simple procedure. **Virus** infectivity was significantly abolished when plants were sprayed with French Press lysates several days before **virus** inoculation. Our approach provides an alternative to genetic transformation of **plant** species with dsRNA-expressing constructs capable to interfere with **plant** viruses. The main advantage of this mode of dsRNA production is its simplicity and its extremely low cost compared with the requirements for regenerating **transgenic** plants. This approach provides a reliable and potential tool, not only for **plant** protection against **virus** diseases, but also for the study of gene **silencing** mechanisms in **plant virus** infections.

=> d 3 so

L5 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1
SO BMC Biotechnology (2003), 3, No pp. given
CODEN: BBMIE6; ISSN: 1472-6750
URL: http://www.biomedcentral.com/1472-6750/3/3

=> d 4 ab

L5 ANSWER 4 OF 7 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN
AB We have developed a new strategy for engineering **resistance** to multiple viruses in plants. The strategy exploits the human **double stranded** (ds) RNA-dependent protein kinase (PKR). PKR is one of the interferon-induced enzymes. It confers viral **resistance** in mammals by inhibiting viral replication through the inactivation of the translational initiation factor, eIF-2alpha was fused to the promoter of the Arabidopsis blue copper binding protein gene (BCB) that is induced rapidly in response to wounding. The chimeric gene cassette was introduced into tobacco plants. Expression of the PKR gene in **transgenic** tobacco plants was demonstrated by RNA gel blot analysis and autophosphorylation assay of an Mr 68,000 protein. The **transgenic** plants expressing the PKR gene showed significantly reduced viral symptoms or no viral symptoms at all, when challenged by different **plant** RNA viruses, such as Cucumber mosaic **virus**, Tobacco etch **virus**, or Potato **virus** Y. Thus, expression of a single component in the human interferon pathway, the PKR gene, can effectively

confer **resistance** to multiple viruses in **transgenic** plants.

=> d 4 so

L5 ANSWER 4 OF 7 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN

SO Molecular breeding : new strategies in plant improvement, 2002. Vol. 10, No. 1/2. p. 11-18
Publisher: Dordrecht ; Boston : Kluwer Academic Publishers, c1995-
CODEN: MOBRFL; ISSN: 1380-3743

=> d 5 ab

L5 ANSWER 5 OF 7 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN

AB Antisense-mediated gene **silencing** (ASGS) and posttranscriptional gene **silencing** (PTGS) with sense transgenes markedly reduce the steady-state mRNA levels of endogenous genes similar in transcribed sequence. RNase protection assays established that **silencing** in tobacco plants transformed with **plant**-defense-related class I sense and antisense chitinase (CHN) transgenes is at the posttranscriptional level. Infection of tobacco plants with cucumber mosaic **virus** strain FN and a necrotizing strain of potato **virus** Y, but not with potato **virus** X, effectively suppressed PTGS and ASGS of both the transgenes and homologous endogenes. This suggests that ASGS and PTGS share components associated with initiation and maintenance of the silent state. Small, ca. 25-nt RNAs (smRNA) of both polarities were associated with PTGS and ASGS in CHN transformants as reported for PTGS in other **transgenic** plants and for RNA interference in Drosophila. Similar results were obtained with an antisense class I beta-1,3-glucanase transformant showing that viral suppression and smRNAs are a more general feature of ASGS. Several current models hold that diverse signals lead to production of **double-stranded** RNAs, which are processed to smRNAs that then trigger PTGS. Our results provide direct evidence for mechanistic links between ASGS and PTGS and suggest that ASGS could join a common PTGS pathway at the **double-stranded** RNA step.

=> d 5 so

L5 ANSWER 5 OF 7 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN

SO Proceedings of the National Academy of Sciences of the United States of America, May 22, 2001. Vol. 98, No. 11. p. 6506-6510
Publisher: Washington, D.C. : National Academy of Sciences,
CODEN: PNASA6; ISSN: 0027-8424

=> s rnai or rna interf?
L6 11495 RNAI OR RNA INTERF?

=> s l6 and vir? and plant?
L7 304 L6 AND VIR? AND PLANT?

=> s l7 and transgenic
L8 73 L7 AND TRANSGENIC

=> dup rem l8
PROCESSING COMPLETED FOR L8
L9 52 DUP REM L8 (21 DUPLICATES REMOVED)

=> d 1-10 ti

L9 ANSWER 1 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI A Caenorhabditis elegans expression system sensitive to **RNA interference** for use in screening for interfering RNAs for therapeutic use

L9 ANSWER 2 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI Autocidal control of parasite vectors

L9 ANSWER 3 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI Quantitative analysis of siRNA-mediated GFP silencing in **transgenic** pine cells

L9 ANSWER 4 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1
TI Different effects on ACC oxidase gene silencing triggered by **RNA interference** in **transgenic** tomato

L9 ANSWER 5 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI **RNA interference**: From gene silencing to gene-specific therapeutics

L9 ANSWER 6 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI **Plant** pathology and **RNAi**: A brief history

L9 ANSWER 7 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI Repression of the expression **plant** tobamovirus multiplication gene TOMs for **plant virus** resistance

L9 ANSWER 8 OF 52 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN
TI Three distinct suppressors of RNA silencing encoded by a 20-kb **viral** RNA genome.

L9 ANSWER 9 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2
TI Nodamura **virus** nonstructural protein B2 can enhance **viral** RNA accumulation in both mammalian and insect cells

L9 ANSWER 10 OF 52 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN DUPLICATE 3
TI **Plant** proteins that interact with **VirB2**, the Agrobacterium tumefaciens pilin protein, mediate **plant** transformation.

=> d 6 ab

L9 ANSWER 6 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
AB This article describes the discovery of RNA-activated sequence-specific RNA degradation, a phenomenon now referred to as RNA silencing or **RNA interference** (**RNAi**). From 1992 to 1996, a series of articles were published on **virus** resistant **transgenic plants** expressing either translatable or nontranslatable versions

of the coat protein gene of Tobacco etch **virus** (TEV). Certain **transgenic plant** lines were resistant to TEV but not to closely related **viruses**. In these **plants** a surprising correlation was observed: **Transgenic plant** lines with the highest degree of TEV resistance had actively transcribed transgenes but low steady-state levels of transgene RNA. Mol. anal. of these **transgenic plants** demonstrated the existence of a cellular-based, sequence-specific, posttranscriptional RNA-degradation system that was programmed by the transgene-encoded RNA sequence. This RNA-degradation activity specifically targeted both the transgene RNA and TEV (**viral**) RNA for degradation and was the first description of RNA-mediated gene silencing.

=> d 6 so

L9 ANSWER 6 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
SO Annual Review of Phytopathology (2005), 43, 191-204
CODEN: APPYAG; ISSN: 0066-4286

=> d 7 ab

L9 ANSWER 7 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
AB This invention provides a process of repression the expression of tobamovirus multiplication gene TOMs by **RNAi**. The cDNA and protein sequences of tobamovirus multiplication genes and their homologs from four **plants** were disclosed. The **transgenic plants** provided in this invention can be used for **plant virus** resistance.

=> d 7 pi

L9 ANSWER 7 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004254658	A2	20040916	JP 2003-51915	20030227

=> d 11-20 ti

L9 ANSWER 11 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 4
TI Use of **RNAi** technology to confer enhanced resistance to BmNPV on **transgenic** silkworms

L9 ANSWER 12 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI Tomato yellow leaf curl Sardinia **virus** can overcome transgene-mediated RNA silencing of two essential **viral** genes

L9 ANSWER 13 OF 52 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN
TI Probing the microRNA and small interfering RNA pathways with **virus** -encoded suppressors of RNA silencing.

L9 ANSWER 14 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 5
TI A hypersensitive response-induced ATPase associated with various cellular activities (AAA) protein from tobacco **plants**

L9 ANSWER 15 OF 52 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.

(2005) on STN
TI Broad spectrum resistance to ssDNA **viruses** associated with transgene-induced gene silencing in cassava.

L9 ANSWER 16 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 6
TI Infection and RNA recombination of Brome mosaic **virus** in Arabidopsis thaliana

L9 ANSWER 17 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI Advances in study of **RNA interference** and its botanical significance

L9 ANSWER 18 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 7
TI **Transgenic plant**-derived siRNAs can suppress propagation of influenza **virus** in mammalian cells

L9 ANSWER 19 OF 52 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.
(2005) on STN DUPLICATE 8
TI Suppression of post-transcriptional gene silencing by callus induction and **virus** infection reveals the existence of aberrant RNAs.

L9 ANSWER 20 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 9
TI **RNA interference** as a new biotechnological tool for the control of **virus** diseases in **plants**

=> d 15 ab

L9 ANSWER 15 OF 52 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.
(2005) on STN

=> d 15 so

L9 ANSWER 15 OF 52 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved.
(2005) on STN
SO Plant molecular biology, 2004 Nov. Vol. 56, no. 4 p. 601-611
ISSN: 0167-4412

=> d 16 ab

L9 ANSWER 16 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 6
AB Ecotypes of Arabidopsis thaliana supported the replication and systemic spread of Brome mosaic **virus** (BMV) RNAs. Infection was induced either by manual inoculation with **viral** RNA or by BMV **virions**, demonstrating that **virus** disassembly did not prevent infection. When in vitro-transcribed BMV RNAs 1-3 were used, production of subgenomic RNA4 was observed, showing that BMV RNA replication and transcription had occurred. Furthermore, inoculations of the **transgenic** Arabidopsis line that expressed a suppressor of **RNA interference** (**RNAi**) pathway markedly increased the BMV RNA concns. Inoculations with designed BMV RNA3 recombination vectors generated both homologous and nonhomologous BMV RNA-RNA recombinants. Thus, all cellular factors essential for BMV RNA replication, transcription, and RNA recombination were shown to be present in Arabidopsis. The current scope of understanding of the model

Arabidopsis **plant** system should facilitate the identification of these factors governing the BMV life cycle.

=> d 16 so

L9 ANSWER 16 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 6
SO Virology (2004), 318(2), 482-492
CODEN: VIRLAX; ISSN: 0042-6822

=> d 20 ab

L9 ANSWER 20 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 9
AB A review. RNA silencing occurs in a wide variety of organisms, including protozoa, fungi, **plants** and animals and involves recognition of a target RNA and initiation of a sequence-specific RNA degradation pathway in the cytoplasm. In the last few years, there have been considerable advances in our understanding of post-transcriptional gene silencing (PTGS). This mechanism is conceived as a natural antiviral defense system in **plants** that is activated as a response to double-stranded RNA (dsRNA) formed during **virus** replication. To develop new approaches for **plant** protection against **virus** diseases based on PTGS we have expanded previous findings on **RNA interference** (**RNAi**) in animals by using dsRNA to specifically interfere with **virus** infection in **plants**. This approach differs from strategies based on **transgenic** expression of RNAs but still relies on PTGS as a means to achieve pathogen-derived resistance (PDR). Our findings suggest that exogenously supplied dsRNA could form the basis for the development of an environmentally safe, new biotechnol. tool aimed at protecting crops against **virus** diseases, provided that some limitations of the current status of the approach could be overcome.

=> d 20 so

L9 ANSWER 20 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 9
SO Virus Research (2004), 102(1), 85-96
CODEN: VIREDF; ISSN: 0168-1702

=> d 21-30 ti

L9 ANSWER 21 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI Mechanism of RNA silencing and its application for **virus** resistance

L9 ANSWER 22 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 10
TI **RNA interference**, arthropod-borne **viruses**, and mosquitoes

L9 ANSWER 23 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI Inhibition of hepatitis C **virus** IRES mediated gene expression by short interfering RNAs

L9 ANSWER 24 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI Knocking out GDP-fucose transporter in animal cell lines and the used of the cells for antibody production

L9 ANSWER 25 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI Transitivity-dependent and -independent cell-to-cell movement of RNA silencing

L9 ANSWER 26 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI Evidence for nuclear processing of **plant** micro RNA and short interfering RNA precursors

L9 ANSWER 27 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 11
TI Disease resistance and abiotic stress tolerance in rice are inversely modulated by an abscisic acid-inducible mitogen-activated protein kinase

L9 ANSWER 28 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI Genetic algorithm approach for the closest string problem

L9 ANSWER 29 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI Evidence for RNA-mediated resistance to PVYN in tobacco **plants** transformed with **viral** coat protein gene

L9 ANSWER 30 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI Transient expression of homologous hairpin RNA causes interference with **plant virus** infection and is overcome by a **virus** encoded suppressor of gene silencing

=> d 21 ab

L9 ANSWER 21 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
AB A review. RNA silencing is sequence-specific and high efficient degradation mechanism that operates in diverse eukaryotes including **plants** (post-transcriptional gene silencing, PTGS; or co-suppression), animals (**RNA interference**, **RNAi**) and fungi (quelling), with role against invading parasites (transposon, transgene or **virus**). Increased knowledge of both mol. genetics of **plant viruses** and their hosts' natural defense systems have resulted in the development of a number of novel ways to control **virus** diseases in **plants**, however, obtaining **virus**-resistant **transgenic plants** mediated by RNA silencing is by far the most successful way. In this paper, novel insights in RNA silencing mechanism and approach for obtaining **virus**-resistant **transgenic plants** using this mechanism are introduced.

=> d 21 so

L9 ANSWER 21 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
SO Zhongguo Shengwu Gongcheng Zazhi (2004), 24(2), 76-79
CODEN: ZSGZAW; ISSN: 1671-8135

=> d 22 ab

L9 ANSWER 22 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 10
AB A review. **RNA interference** (**RNAi**) probably functions as an antiviral mechanism in most eukaryotic organisms. Variations in the activity of this antiviral pathway in mosquitoes could explain, in part, why some mosquitoes are competent vectors of medically important, arthropod-borne **viruses** (arboviruses) and others are not. There are three lines of evidence that show the **RNAi** pathway exists in Aedes species that transmit arboviruses. The first is that recombinant Sindbis **viruses** expressing an RNA fragment from a genetically unrelated dengue-2 **virus** (DENV-2) interfere with DENV-2 replication in Aedes aegypti mosquitoes by a mechanism similar to **virus**-induced gene silencing described in **plants**. The second is that transfection of C6/36 (Aedes albopictus) cells with either double-stranded RNA or synthetic small interfering RNAs derived from an arbovirus genome interferes with replication of the homologous

virus. The third is that a hairpin DENV-2-specific RNA transcribed from a plasmid can generate **virus**-resistant C6/36 cells. We hypothesize that genetically modified mosquitoes can be generated that transcribe a flavivirus-specific dsRNA, triggering the **RNAi** response soon after ingestion of a blood meal. This could induce the **RNAi** pathway in the midgut prior to establishment of **virus** infection and profoundly change vector competence. Towards this goal, we are developing **transgenic** A. aegypti lines that are refractory to DENV by exploiting the **RNAi** pathway.

=> d 29 ab

L9 ANSWER 29 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
AB According to the published nucleotide sequence of tobacco **viral** necrosis strain (PVYN), the PVYN coat protein (CP) gene was synthesized by reverse transcription-polymerase chain reaction, and constructed into the cloning vector pBSK. The PVYN CP gene was introduced into tobacco (NC89) **plants** via Agrobacterium tumefaciens (LBA4404)-mediated transformation and the transformed tissue was selected in the presence of Kanamycin sulfate. Regenerated **plants** were screened by PCR and 38 **transgenic plants** were obtained. Resistant test indicated that the resistant levels of the **transgenic plants** against PVYN varied among different **transgenic plants**. Four lines were highly resistant to PVYN infection. Southern blot anal. indicated that the CP gene had been integrated into the tobacco chromosomes and the resistance levels of the **transgenic plants** were related to copy nos. of the transgene. The highly resistant **plants** contained 5-6 copies of the transgene, the resistant **plants** contained 3-4 copies and the susceptible **plants** contained 1-2 copies. Northern blot anal. demonstrated that the transgene was expressed at RNA level and there was an inverse correlation between transgene transcript accumulation and **viral** resistance. Western blot anal. showed that no specific protein was observed in highly resistant **plants**, transgene CP detected in both the resistant and susceptible **plants**, and the CP accumulation varied among different **transgenic plants** . Results indicated that the resistance mechanism of the **transgenic plants** was similar to post-transcriptional gene silence, i.e., RNA-mediated resistance.

=> d 29 so

L9 ANSWER 29 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
SO Yingyong Yu Huanjing Shengwu Xuebao (2003), 9(4), 372-376
CODEN: YYHXFX; ISSN: 1006-687X

=> d 31-40 ti

L9 ANSWER 31 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI RNA-directed DNA methylation and chromatin modifications

L9 ANSWER 32 OF 52 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN
TI **RNAi** targeting of DNA **virus** in **plants**.

L9 ANSWER 33 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI The capacity of **transgenic** tobacco to send a systemic RNA silencing signal depends on the nature of the inducing transgene locus

L9 ANSWER 34 OF 52 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Resistance to multiple pea **viruses** in pac1 **transgenic** peas.

L9 ANSWER 35 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI Identification, cloning, characterization and use of human mitochondrial apoptosis modulator protein Bcl-B

L9 ANSWER 36 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI Suppression of post-transcriptional gene silencing using umbravirus ORF3 protein

L9 ANSWER 37 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI A **viral** suppressor of RNA silencing differentially regulates the accumulation of short interfering RNAs and micro-RNAs in tobacco

L9 ANSWER 38 OF 52 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN DUPLICATE 12
TI High molecular weight RNAs and small interfering RNAs induce systemic posttranscriptional gene silencing in **plants**.

L9 ANSWER 39 OF 52 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN
TI Induction and suppression of RNA silencing by an animal **virus**.

L9 ANSWER 40 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI The occurrence of CMV-specific short RNAs in **transgenic** tobacco expressing **virus**-derived double-stranded RNA is indicative of resistance to the **virus**

=> d 34 ab

L9 ANSWER 34 OF 52 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
AB Experiments were conducted to obtain peas with resistance to multiple **virus** diseases, using a dsRNase gene from Schizosaccharomyces pombe (pac1) and an enzymatically inactive mutant (E251K) of pac1. We hypothesized that the enzyme would digest dsRNA, providing a multi-**virus** resistant phenotype. **Transgenic** peas were inoculated with 5 **viruses** and resistance was obtained to three of these (CMV, PEMV, PeSV). However, the enzymatically inactive mutant also provided resistance to these same **viruses**. Neither transgene had any effect on the potyviruses PSbMV or BYMV. Therefore, enzymatic activity of the transgene was not the direct cause of **virus** resistance. Rather, these results suggest that the anti-**virus** activity appears to be **RNAi**-based. The transgene either replaces or enhances a host-based **RNAi** system to provide multi-**virus** resistance, except in the presence of the suppressor of post-transcriptional gene silencing, HC-Pro.

=> d 34 so

L9 ANSWER 34 OF 52 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
SO Phytopathology, (June 2003) Vol. 93, No. 6 Supplement, pp. S24. print. Meeting Info.: Annual Meeting of the American Phytopathological Society. Charlotte, North Carolina, USA. August 09-13, 2003. American

Phytopathological Society.
ISSN: 0031-949X (ISSN print).

=> d 38 ab

L9 ANSWER 38 OF 52 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN DUPLICATE 12

AB Posttranscriptional gene silencing (PTGS) in **transgenic plants** is an epigenetic form of RNA degradation related to PTGS and **RNA interference** (**RNAi**) in fungi and animals. Evidence suggests that transgene loci and RNA **viruses** can generate double-stranded RNAs similar in sequence to the transcribed region of target genes, which then undergo endonucleolytic cleavage to generate small interfering RNAs (siRNA) that promote degradation of cognate RNAs. The silent state in **transgenic plants** and in Caenorhabditis elegans can spread systemically, implying that mobile silencing signals exist. Neither the chemical nature of these signals nor their exact source in the PTGS pathway is known. Here, we use a positive marker system and real-time monitoring of green fluorescent protein expression to show that large sense, antisense, and double-stranded RNAs as well as double-stranded siRNAs delivered biolistically into **plant** cells trigger silencing capable of spreading locally and systemically. Systemically silenced leaves show greatly reduced levels of target RNA and accumulate siRNAs, confirming that RNA can induce systemic PTGS. The induced siRNAs represent parts of the target RNA that are outside of the region of homology with the triggering siRNA. Our results imply that siRNAs themselves or intermediates induced by siRNAs could comprise silencing signals and that these signals induce self-amplifying production of siRNAs.

=> d 38 so

L9 ANSWER 38 OF 52 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN DUPLICATE 12

SO Proceedings of the National Academy of Sciences of the United States of America, Sept 3, 2002. Vol. 99, No. 18. p. 11981-11986
Publisher: Washington, D.C. : National Academy of Sciences,
CODEN: PNASA6; ISSN: 0027-8424

=> d 41-50 ti

L9 ANSWER 41 OF 52 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN

TI Fertile hypomorphic ARGONAUTE (ago1) mutants impaired in post-transcriptional gene silencing and **virus** resistance.

L9 ANSWER 42 OF 52 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

TI Gene silencing: A still puzzling phenomenon but already powerful tool in **plant** genetics.

L9 ANSWER 43 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 13

TI Geminivirus sequences as bidirectional transcription termination/polyadenylation signals for economic construction of stably expressed transgenes

L9 ANSWER 44 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI Antisense DNAs of nematode genes expressing in **transgenic plants** for parasite resistance

L9 ANSWER 45 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI Compositions and methods for gene silencing by expression of double-stranded RNA

L9 ANSWER 46 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI Regulation of expression of Polycomb group gene (such as Arabidopsis MEA) by second site mutations (such as ddm1) for increasing seed size in **plants**

L9 ANSWER 47 OF 52 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN DUPLICATE 14
TI Sense- and antisense-mediated gene silencing in tobacco is inhibited by the same **viral** suppressors and is associated with accumulation of small RNAs.

L9 ANSWER 48 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
TI Construct design for efficient, effective and high-throughput gene silencing in **plants**

L9 ANSWER 49 OF 52 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN
TI Size constraints for targeting post-transcriptional gene silencing and for RNA-directed methylation in Nicotiana benthamiana using a potato **virus** X vector.

L9 ANSWER 50 OF 52 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN DUPLICATE 15
TI Specific and heritable genetic interference by double-stranded RNA in Arabidopsis thaliana.

=> d 42 ab

L9 ANSWER 42 OF 52 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN

=> d 42 so

L9 ANSWER 42 OF 52 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
SO Phytoparasitica, (June, 2002) Vol. 30, No. 3, pp. 221-223. print. CODEN: PHPRA2. ISSN: 0334-2123.

=> d 45 ab

L9 ANSWER 45 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
AB DNA constructs are provided for disrupting gene expression in targeted organisms, including humans, mice, **plants**, insects, and nematodes. The DNA constructs involve a transcription promoter followed by a gene coding sequence in the sense orientation linked to the same coding sequence in an antisense orientation followed by a transcription

terminator. Use of a DNA construct, which is an inverted repeat (IR) of a gene cloned in an expression vector, for treatment of Alzheimer's and Parkinson's disease and tomato leaf curl **virus** is claimed. **RNA interference** by double-stranded RNA using methods claimed in this invention was demonstrated in Caenorhabditis elegans and was more effective compared to gene disruption methods such as injection of dsRNA and expression of an antisense DNA strand alone. For some but not all genes tested, **transgenic** C. elegans lines containing extrachromosomal IR gene constructs under control of the heat shock-inducible promoter hsp16-2 had high percentages of progeny with the predicted phenotype for deletions of the gene used in the construct. C. elegans gene C37A2.5 required for development past the L2 larval stage, gene F26F12.7 required for fertility, and gene mec-4 required for touch sensitivity could be disrupted by the claimed methods while genes efk-1 and unc-119 were not affected. The ability of an hsp16-2 promoter-green fluorescent protein (GFP) gene IR construct to affect expression of an integrated GFP gene in C. elegans was also demonstrated.

=> d 45 so

L9 ANSWER 45 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN
SO PCT Int. Appl., 67 pp.
CODEN: PIXXD2

=> d 45 pi

L9 ANSWER 45 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001049844	A1	20010712	WO 2001-US126	20010102
	WO 2001049844	C2	20021031		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 2005229272	A1	20051013	US 2005-169287	20050419

=> d 49 ab

L9 ANSWER 49 OF 52 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN

AB Using a recombinant potato **virus** X (PVX) vector, we investigated the relationship between the length of RNA sequence identity with a transgene and the ability to promote post-transcriptional gene silencing (PTGS) and transgene methylation. The lower size limit required for targeting reporter transgene mRNA de novo using PTGS was 23 nucleotides (nt) of complete identity, a size corresponding to that of small RNAs associated with PTGS in **plants** and **RNA interference** (**RNAi**) in animals. The size and sequence specificity were also explored for PTGS-associated transgene methylation and for the targeting of the vector RNA. The PTGS-competent short sequences resulted in similar patterns of methylation. In all cases, including specific sequences of 33 nt with or without symmetrical cytosine residues, the methylation was distributed throughout the transcribed

region of the transgene. In contrast, short sequences lacking symmetrical cytosines were less efficient at promoting PTGS of the transgene mRNA. Short gfp sequences in the PVX vector provided as effective a target for the degradation of **viral** RNA as was found for PVX carrying the complete gfp cDNA. Short sequences were able to initiate PTGS of an endogenous gene, phyotene desaturase, although this occurred in the absence of DNA methylation. This experimental approach provides important insights into the relationship between short RNA sequences and PTGS.

=> d 49 so

L9 ANSWER 49 OF 52 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN
SO The Plant journal : for cell and molecular biology, Feb 2001. Vol. 25, No. 4. p. 417-425
Publisher: Oxford : Blackwell Sciences Ltd.
ISSN: 0960-7412

=> d 50 ab

L9 ANSWER 50 OF 52 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN DUPLICATE 15
AB We investigated the potential of double-stranded **RNA interference** (**RNAi**) with gene activity in Arabidopsis thaliana. To construct transformation vectors that produce RNAs capable of duplex formation, gene-specific sequences in the sense and antisense orientations were linked and placed under the control of a strong **viral** promoter. When introduced into the genome of A. thaliana by Agrobacterium-mediated transformation, double-stranded RNA-expressing constructs corresponding to four genes, AGAMOUS (AG), CLAVATA3, APETALA1, and PERIANTHIA, caused specific and heritable genetic interference. The severity of phenotypes varied between **transgenic** lines. In situ hybridization revealed a correlation between a declining AG mRNA accumulation and increasingly severe phenotypes in AG (**RNAi**) mutants, suggesting that endogenous mRNA is the target of double-stranded RNA-mediated genetic interference. The ability to generate stably heritable **RNAi** and the resultant specific phenotypes allows us to selectively reduce gene function in A. thaliana.

=> d 50 so

L9 ANSWER 50 OF 52 AGRICOLA Compiled and distributed by the National Agricultural Library of the Department of Agriculture of the United States of America. It contains copyrighted materials. All rights reserved. (2005) on STN DUPLICATE 15
SO Proceedings of the National Academy of Sciences of the United States of America, Apr 25, 2000. Vol. 97, No. 9. p. 4985-4990
Publisher: Washington, D.C. : National Academy of Sciences,
CODEN: PNASA6; ISSN: 0027-8424

=> d 51-52 ti

L9 ANSWER 51 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 16
TI DNA methylation and chromatin structure affect transcriptional and post-transcriptional transgene silencing in Arabidopsis

L9 ANSWER 52 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 17
TI A single copy of a **virus**-derived transgene encoding hairpin RNA gives immunity to barley yellow dwarf **virus**

=> d 52 ag
'AG' IS NOT A VALID FORMAT
In a multifile environment, a format can only be used if it is valid in at least one of the files. Refer to file specific help messages or the STNGUIDE file for information on formats available in individual files.
REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):ab

L9 ANSWER 52 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 17
AB Barley yellow dwarf **virus**-PAV (BYDV-PAV) is the most serious and widespread **virus** of cereals worldwide. Natural resistance genes against this luteovirus give inadequate control, and previous attempts to introduce synthetic resistance into cereals have produced variable results. In an attempt to generate barley with protection against BYDV-PAV, **plants** were transformed with a transgene designed to produce hairpin (hp)RNA containing BYDV-PAV sequences. From 25 independent barley lines transformed with the BYDV-PAV hpRNA construct, nine lines showed extreme resistance to the **virus** and the majority of these contained a single transgene. In the progeny of two independent **transgenic** lines, inheritance of a single transgene consistently correlated with protection against BYDV-PAV. This protection was rated as immunity because the **virus** could not be detected in the challenged **plants** by ELISA nor recovered by aphid feeding expts. In the field, BYDV-PAV is sometimes associated with the related luteovirus Cereal yellow dwarf **virus**-RPV (CYDV-RPV). When the **transgenic plants** were challenged with BYDV-PAV and CYDV-RPV together, the **plants** were susceptible to CYDV-RPV but immune to BYDV-PAV. This shows that the immunity is **virus** -specific and not broken down by the presence of CYDV. It suggests that CYDV-RPV does not encode a silencing-suppressor gene or that its product does not protect BYDV-PAV against the **plant**'s **RNAi** -like defense mechanism. Either way, our results indicate that the BYDV-PAV immunity will be robust in the field and is potentially useful in minimizing losses in cereal production worldwide.

=> d 52 so

L9 ANSWER 52 OF 52 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 17
SO Molecular Plant Pathology (2000), 1(6), 347-356
CODEN: MPPAFD; ISSN: 1464-6722

=> s ((heifetz p?) or (heifetz, p?))/au
L10 64 ((HEIFETZ P?) OR (HEIFETZ, P?))/AU

=> s l10 and (virus or viral)
L11 4 L10 AND (VIRUS OR VIRAL)

=> dup rem l11
PROCESSING COMPLETED FOR L11
L12 3 DUP REM L11 (1 DUPLICATE REMOVED)

=> d 1-3 ti

L12 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
TI Antibodies to enterotoxigenic Escherichia coli for prevention of enteric disease and their manufacture in plants

L12 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
TI Regulation of **viral** gene expression by sense and antisense-expressing cassettes forming double-stranded RNA

L12 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1
TI Methods of double-stranded RNA-mediated gene inactivation in Arabidopsis and their use to define an essential gene in methionine biosynthesis

=> d 2 ab

L12 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
AB The present invention relates to methods to alter the expression of a **viral** gene in a cell using sense and antisense RNA fragments of the gene. The sense and antisense RNA fragments are capable of pairing and forming a double-stranded RNA mol., thereby altering the expression of the gene. The present invention also relates to cells, plants or animals, their progeny and seeds derived thereof, obtained using a method of the present invention. Preferably, such cells, plants or animals are resistant or tolerant to viruses. The method is exemplified by construction of (1) a chimeric gene cassette encoding a sense and antisense RNA fragment for the coat protein from beet western yellows **virus** driven by the RolC promoter, (2) a cassette for the replicase gene from beet necrotic yellow vein **virus** driven by the Arabidopsis Ubi3int promoter, (3) a plant transformation vector for zucchini yellow mosaic potyvirus and papaya ringspot potyvirus resistance in melon, and (4) a plant transformation vector for potato **virus** Y resistance in tomato.

=> d 2 so

L12 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
SO PCT Int. Appl., 75 pp.
CODEN: PIXXD2

=> d 2 pi

L12 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000068374	A1	20001116	WO 2000-EP4117	20000508
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2369422	AA	20001116	CA 2000-2369422	20000508
	AU 2000045633	A5	20001121	AU 2000-45633	20000508
	EP 1177283	A1	20020206	EP 2000-927165	20000508
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	BR 2000010496	A	20020402	BR 2000-10496	20000508
	TR 200103088	T2	20020521	TR 2001-200103088	20000508
	JP 2002543783	T2	20021224	JP 2000-616341	20000508
	ZA 2001009152	A	20020906	ZA 2001-9152	20011106

=> d 3 ab

L12 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1
AB Controlled down-regulation of endogenous plant gene expression is a useful tool, but antisense and sense silencing lack predictability. Recent studies show that expression of both antisense and sense RNA together is an effective means of inactivating reporter and **viral** genes in plants. We created transgenic plants expressing antisense and sense RNA together in a single "double-stranded RNA" (dsRNA) transcript. This approach shows great promise as a highly effective means for reducing gene function. With this approach, we demonstrated that the Arabidopsis cystathionine β-lyase gene, which encodes a methionine biosynthetic enzyme, is essential for viability. Inactivation of this gene was rescued by the addition of methionine to the growth medium. Compared to antisense and sense constructs, the dsRNA construct showed a much more consistent and complete suppression of gene activity. Addnl., expression of a transcript with a spacer sequence containing an unrelated gene between antisense and sense luciferase gene fragments led to stronger inactivation of a second luciferase transgene than did constructs with a minimal spacing between sense and antisense fragments. However, the gene in the spacer region was neither functionally expressed nor functional in silencing a second, unlinked homologous transgene.

=> d 3 so

L12 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1
SO Plant Molecular Biology (2000), 44(6), 759-775
CODEN: PMBIDB; ISSN: 0167-4412

=> s ((patton d?) or (patton, d?))/au
L13 779 ((PATTON D?) OR (PATTON, D?))/AU

=> s l13 and (virus or viral)
L14 22 L13 AND (VIRUS OR VIRAL)

=> dup rem l14
PROCESSING COMPLETED FOR L14
L15 21 DUP REM L14 (1 DUPLICATE REMOVED)

=> d 1-10 ti

L15 ANSWER 1 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Interferon withdrawal; Something clinicians should aware.

L15 ANSWER 2 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Safety and efficacy evaluations for vaginal and rectal use of BufferGel in the macaque model.

L15 ANSWER 3 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Rectal applications of nonoxynol-9 cause tissue disruption in a monkey model.

L15 ANSWER 4 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Co-morbid behavioral emotional disturbances (BED) associated with hepatits C **virus** (HCV): Prevalence, compliance and treatment responses using a multidiscipline approach.

L15 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2005 ACS on STN
TI Regulation of **viral** gene expression by sense and antisense-expressing cassettes forming double-stranded RNA

L15 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2005 ACS on STN
TI Depomedroxyprogesterone-induced hypoestrogenism and changes in vaginal

flora and epithelium

L15 ANSWER 7 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Antibody response to hepatitis A (HAV) vaccination in alcoholic subjects with and without liver injury.

L15 ANSWER 8 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Syndrome mimicking acute GVHD associated with BK infection following unrelated donor BMT.

L15 ANSWER 9 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Hemorrhagic cystitis and BK **virus** infection in pediatric bone marrow transplant recipients.

L15 ANSWER 10 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Thymic carcinoma with a defective Epstein-Barr **virus** encoding the BZLF1 trans-activator.

=> d 5 ab

L15 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2005 ACS on STN
AB The present invention relates to methods to alter the expression of a **viral** gene in a cell using sense and antisense RNA fragments of the gene. The sense and antisense RNA fragments are capable of pairing and forming a double-stranded RNA mol., thereby altering the expression of the gene. The present invention also relates to cells, plants or animals, their progeny and seeds derived thereof, obtained using a method of the present invention. Preferably, such cells, plants or animals are resistant or tolerant to viruses. The method is exemplified by construction of (1) a chimeric gene cassette encoding a sense and antisense RNA fragment for the coat protein from beet western yellows **virus** driven by the RolC promoter, (2) a cassette for the replicase gene from beet necrotic yellow vein **virus** driven by the Arabidopsis Ubi3int promoter, (3) a plant transformation vector for zucchini yellow mosaic potyvirus and papaya ringspot potyvirus resistance in melon, and (4) a plant transformation vector for potato **virus** Y resistance in tomato.

=> d 5 pi

L15 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2005 ACS on STN

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000068374	A1	20001116	WO 2000-EP4117	20000508
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2369422	AA	20001116	CA 2000-2369422	20000508
AU 2000045633	A5	20001121	AU 2000-45633	20000508
EP 1177283	A1	20020206	EP 2000-927165	20000508
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 2000010496	A	20020402	BR 2000-10496	20000508
TR 200103088	T2	20020521	TR 2001-200103088	20000508
JP 2002543783	T2	20021224	JP 2000-616341	20000508

ZA 2001009152 A 20020906 ZA 2001-9152 20011106

=> d 11-21 ti

L15 ANSWER 11 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI EBV genome detection in tissues of patients with Kawasaki syndrome.

L15 ANSWER 12 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI MICROBIOLOGY AND PATHOLOGY OF PELVIC INFLAMMATORY DISEASE.

L15 ANSWER 13 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI THE FETUS DURING MATERNAL FEVER BIOPHYSICAL EFFECTS ASSOCIATED WITH **VIRAL** SYNDROMES DIFFER FROM THOSE ASSOCIATED WITH PYELONEPHRITIS.

L15 ANSWER 14 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI DETECTION OF ZEBRA BZLF-1 EXPRESSION IN MALIGNANT AND NONMALIGNANT EBV-CONTAINING HUMAN TISSUES.

L15 ANSWER 15 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI EPSTEIN-BARR **VIRUS**-DETERMINED CLONALITY IN POSTTRANSPLANT LYMPHOPROLIFERATIVE DISEASE.

L15 ANSWER 16 OF 21 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1
TI Defective **viral** DNA in Epstein-Barr **virus**-associated oral hairy leukoplakia

L15 ANSWER 17 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI EPSTEIN-BARR **VIRUS** ASSOCIATED B CELL LYMPHOPROLIFERATIVE DISORDERS FOLLOWING BONE MARROW TRANSPLANTATION.

L15 ANSWER 18 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI CLONAL REARRANGEMENT OF IMMUNOGLOBULIN AND T-CELL RECEPTOR GENES IN SYSTEMIC CASTLEMAN'S DISEASE ASSOCIATION WITH EPSTEIN-BARR **VIRUS** .

L15 ANSWER 19 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI CLONAL REARRANGEMENT FOR IMMUNOGLOBULIN AND T-CELL RECEPTOR GENES IN SYSTEMIC CASTLEMAN'S DISEASE ASSOCIATION WITH EPSTEIN-BARR **VIRUS** .

L15 ANSWER 20 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI B CELL LYMPHOPROLIFERATIVE DISEASE BLPD FOLLOWING ALLOGENEIC BONE MARROW TRANSPLANTATION BMT.

L15 ANSWER 21 OF 21 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI CHARACTERIZATION OF EPSTEIN-BARR **VIRUS** GENOMES IN TRANSPLANT LYMPHOMA-LYMPHOPROLIFERATIVE DISEASE.

=> s ((levin j?) or (levin, j?))/au
L16 2150 ((LEVIN J?) OR (LEVIN, J?))/AU

=> s l16 and (viral or virus)

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L17        161 L16 AND (VIRAL OR VIRUS)

=> s l17 and (double stranded)
L18         11 L17 AND (DOUBLE STRANDED)

=> dup rem l18
PROCESSING COMPLETED FOR L18
L19         10 DUP REM L18 (1 DUPLICATE REMOVED)

=> d 1-10 ti

L19  ANSWER 1 OF 10  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Regulation of viral gene expression by sense and
     antisense-expressing cassettes forming double-stranded
     RNA

L19  ANSWER 2 OF 10  CAPLUS  COPYRIGHT 2005 ACS on STN DUPLICATE 1
TI   Methods of double-stranded RNA-mediated gene
     inactivation in Arabidopsis and their use to define an essential gene in
     methionine biosynthesis

L19  ANSWER 3 OF 10  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Mutating a Conserved Motif of the HIV-1 Reverse Transcriptase Palm
     Subdomain Alters Primer Utilization

L19  ANSWER 4 OF 10  BIOSIS  COPYRIGHT (c) 2005 The Thomson Corporation  on STN
TI   IMPROVED DETECTION OF VARICELLA-ZOSTER VIRUS VZV INFECTIONS WITH
     THE USE OF SHELL VIALS.

L19  ANSWER 5 OF 10  BIOSIS  COPYRIGHT (c) 2005 The Thomson Corporation  on STN
TI   DIAGNOSIS OF HERPETIC OCULAR DISEASE USING PCR.

L19  ANSWER 6 OF 10  BIOSIS  COPYRIGHT (c) 2005 The Thomson Corporation  on STN
TI   EXPRESSION OF HERPES SIMPLEX VIRUS TYPE 1 GLYCOPROTEIN D
     DELETION MUTANTS IN MAMMALIAN CELLS.

L19  ANSWER 7 OF 10  BIOSIS  COPYRIGHT (c) 2005 The Thomson Corporation  on STN
TI   A NATURALLY OCCURRING EPIZOOTIC OF SIMIAN AGENT 8 IN THE BABOON.

L19  ANSWER 8 OF 10  BIOSIS  COPYRIGHT (c) 2005 The Thomson Corporation  on STN
TI   SYNTHESIS AND CELLULAR LOCATION OF THE TEN INFLUENZA POLYPEPTIDES
     INDIVIDUALLY EXPRESSED BY RECOMBINANT VACCINIA VIRUSES.

L19  ANSWER 9 OF 10  BIOSIS  COPYRIGHT (c) 2005 The Thomson Corporation  on STN
TI   AN OUTBREAK OF GENITAL AND ORAL LESIONS CAUSED BY SIMIAN AGENT 8 IN
     BABOONS.

L19  ANSWER 10 OF 10  BIOSIS  COPYRIGHT (c) 2005 The Thomson Corporation  on
     STN
TI   MURINE LEUKEMIA VIRUS MUTANT WITH A FRAMESHIFT IN THE REVERSE
     TRANSCRIPTASE CODING REGION IMPLICATIONS FOR POL GENE STRUCTURE.


=> d pi

L19  ANSWER 1 OF 10  CAPLUS  COPYRIGHT 2005 ACS on STN
     PATENT NO.          KIND   DATE        APPLICATION NO.          DATE
     ----------------    ----   --------    --------------------     --------
PI   WO 2000068374        A1    20001116    WO 2000-EP4117          20000508
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
             CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
             ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
             LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
             SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,
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            ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
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            DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
            CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     CA 2369422          AA    20001116    CA 2000-2369422        20000508
     AU 2000045633       A5    20001121    AU 2000-45633          20000508
     EP 1177283          A1    20020206    EP 2000-927165         20000508
        R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
            IE, SI, LT, LV, FI, RO
     BR 2000010496       A     20020402    BR 2000-10496          20000508
     TR 200103088        T2    20020521    TR 2001-200103088      20000508
     JP 2002543783       T2    20021224    JP 2000-616341         20000508
     ZA 2001009152       A     20020906    ZA 2001-9152           20011106


=> d 2 pi

L19  ANSWER 2 OF 10  CAPLUS  COPYRIGHT 2005 ACS on STN DUPLICATE 1


=> d 2 so

L19  ANSWER 2 OF 10  CAPLUS  COPYRIGHT 2005 ACS on STN DUPLICATE 1
SO   Plant Molecular Biology (2000), 44(6), 759-775
     CODEN: PMBIDB; ISSN: 0167-4412


=> s ((qiudeng q?) or (qiudeng, q?))/AU
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=> s l22 and (virus or viral)
L23         86 L22 AND (VIRUS OR VIRAL)

=> s l23 and (silenc? or double stranded)
L24         11 L23 AND (SILENC? OR DOUBLE STRANDED)

=> dup rem l24
PROCESSING COMPLETED FOR L24
L25          9 DUP REM L24 (2 DUPLICATES REMOVED)

=> d 1-9 ti

L25  ANSWER 1 OF 9  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Life attenuated retrovirus with disruption of Nef gene and insertion of 3'
     part of Nef cistron in antisense orientation

L25  ANSWER 2 OF 9  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Protein or RNA from vertebrate viruses which can act as an RNA
     silencing suppressors (expressional enhancers), and uses thereof
     in recombinant expression systems

L25  ANSWER 3 OF 9  CAPLUS  COPYRIGHT 2005 ACS on STN  DUPLICATE 1
TI   The influenza A virus NS1 protein binds small interfering RNAs
     and suppresses RNA silencing in plants

L25  ANSWER 4 OF 9  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Methods for improvements in or relating to protein production in plant
     cells and uses thereof
```

L25 ANSWER 5 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
TI Antiviral gene therapy on the basis of RNA interference for inhibiting **virus** replication by dsRNA

L25 ANSWER 6 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 2
TI Negative-strand tospoviruses and tenuiviruses carry a gene for a suppressor of gene **silencing** at analogous genomic positions

L25 ANSWER 7 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
TI Cestrum yellow leaf curling **virus** (CmYLCV) promoter: a new strong constitutive promoter for heterologous gene expression in a wide variety of crops

L25 ANSWER 8 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
TI Cestrum yellow leaf curling **virus** promoter and uses

L25 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN
TI Regulation of **viral** gene expression by sense and antisense-expressing cassettes forming **double-stranded** RNA

=> d 9 pi

L25 ANSWER 9 OF 9 CAPLUS COPYRIGHT 2005 ACS on STN

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000068374	A1	20001116	WO 2000-EP4117	20000508
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2369422	AA	20001116	CA 2000-2369422	20000508
	AU 2000045633	A5	20001121	AU 2000-45633	20000508
	EP 1177283	A1	20020206	EP 2000-927165	20000508
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	BR 2000010496	A	20020402	BR 2000-10496	20000508
	TR 200103088	T2	20020521	TR 2001-200103088	20000508
	JP 2002543783	T2	20021224	JP 2000-616341	20000508
	ZA 2001009152	A	20020906	ZA 2001-9152	20011106

=> s ((gielen j?) or (gielen, j?))/au
L26 512 ((GIELEN J?) OR (GIELEN, J?))/AU

=> s l26 and (silenc? or double stranded)
L27 4 L26 AND (SILENC? OR DOUBLE STRANDED)

=> dup rem l27
PROCESSING COMPLETED FOR L27
L28 3 DUP REM L27 (1 DUPLICATE REMOVED)

=> d 1-3 ti

L28 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN
TI Regulation of viral gene expression by sense and antisense-expressing cassettes forming **double-stranded** RNA

L28 ANSWER 2 OF 3 BIOSIS COPYRIGHT (c) 2005 The Thomson Corporation on STN
TI Pharmacological modulation of the bystander effect in the herpes simplex virus thymidine kinase/ganciclovir gene therapy system: Effects of dibutyryl adenosine 3',5'-cyclic monophosphate, a-glycyrrhetinic acid, and cytosine arabinoside.

L28 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN DUPLICATE 1
TI Sequence analysis of a 24-kb contiguous genomic region at the Arabidopsis thaliana PFL locus on chromosome 1

=> d pi

L28 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2005 ACS on STN

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000068374	A1	20001116	WO 2000-EP4117	20000508
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2369422	AA	20001116	CA 2000-2369422	20000508
	AU 2000045633	A5	20001121	AU 2000-45633	20000508
	EP 1177283	A1	20020206	EP 2000-927165	20000508
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	BR 2000010496	A	20020402	BR 2000-10496	20000508
	TR 200103088	T2	20020521	TR 2001-200103088	20000508
	JP 2002543783	T2	20021224	JP 2000-616341	20000508
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WEST Search History

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DATE: Wednesday, October 19, 2005

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☐	L12	l5 and potyvirus and cucomovirus	6
☐	L11	l5 and potyvirus and tospovirus	47
☐	L10	l5 and furovirus and cucomovirus	0
☐	L9	L8 and furovirus and cucomovirus	0
☐	L8	l5 and furovirus and tospovirus	20
☐	L7	l5 and furovirus and potyvirus	41
☐	L6	L5 and bnyvv	11
☐	L5	L4 and (furovirus or potyvirus or tospovirus or cucomovirus)	359
☐	L4	L2 and (silenc$ or interf$)	20151
☐	L3	L2 and (silenc? or interf?)	718
☐	L2	L1 and virus and plant	25944
☐	L1	double stranded	54059

END OF SEARCH HISTORY